

WHAT IS CLAIMED IS:

1. A display device with a plurality of pixels arranged in a pixel portion,  
wherein each column has four or more data lines in the pixel portion.

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2. A display device with a plurality of pixels arranged in a pixel portion,  
wherein two or more data lines are placed in each of the plural pixels.

3. A display device according to claim 2,  
10 wherein the pixels each have a switching element and a light emitting element,  
and  
wherein the switching element is connected to one of the two or more data  
lines, which is predetermined for each pixel.

15 4. A display device comprising:  
a plurality of data lines in a column direction;  
a plurality of scanning lines in a row direction; and  
a plurality of pixels arranged into a matrix pattern, the pixels each having a  
light emitting element,

20 wherein x data lines (x is a natural number equal to or larger than 4) out of the  
plural data lines are placed in each column and one scanning line out of the plural  
scanning lines is placed in each row,

wherein y scanning drivers (y is a natural number equal to or larger than 1) are  
provided to select x scanning lines out of the plural scanning lines simultaneously, and

25 wherein x data drivers are provided to simultaneously supply signals to x pixels  
selected out of the plural pixels through the x data lines placed in each column.

5. A display device comprising:  
x data lines (x is a natural number equal to or larger than 4) placed in each  
30 column;

one scanning line placed in each row; and

a plurality of pixels placed at points where the data lines and the scanning line intersect to form a matrix pattern, the pixels each having a light emitting element,

wherein y scanning drivers (y is a natural number equal to or larger than 1) are  
5 provided to select x scanning lines out of the plural scanning lines simultaneously, and

wherein x data drivers are provided to simultaneously supply signals to x pixels selected out of the plural pixels through the x data lines placed in each column.

6. A display device according to claim 4, wherein the x data drivers each have  
10 a plurality of shift registers and sampling circuits and the shift registers each operating independently, each of the sampling circuits being associated with one of the shift registers.

7. A display device according to claim 5, wherein the x data drivers each have  
15 a plurality of shift registers and sampling circuits and the shift registers each operating independently, each of the sampling circuits being associated with one of the shift registers.

8. A display device according to claim 4, wherein the x data drivers each have  
20 a plurality of shift registers, first latches, second latches, and sampling circuits, the shift registers each operating independently, each of the first latches, each of the second latches, and each of the sampling circuits being associated with one of the shift registers.

25 9. A display device according to claim 5, wherein the x data drivers each have a plurality of shift registers, first latches, second latches, and sampling circuits, the shift registers each operating independently, each of the first latches, each of the second latches, and each of the sampling circuits being associated with one of the shift registers.

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10. A display device according to claim 3, wherein the light emitting element comprises an OLED.

11. A display device according to claim 4, wherein the light emitting element  
5 comprises an OLED.

12. A display device according to claim 5, wherein the light emitting element comprises an OLED.

10 13. A display device according to claim 4, wherein the plural pixels, the y scanning drivers, and the x data drivers are formed on the same insulator.

14. A display device according to claim 5, wherein the plural pixels, the y scanning drivers, and the x data drivers are formed on the same insulator.

15 15. A display device according to claim 4, wherein the pixels each have a driving transistor, a switching transistor, and a capacitor, the driving transistor controlling a current value of the light emitting element, the switching transistor controlling input of a video signal into its pixel, and the capacitor holding the video  
20 signal.

16. A display device according to claim 5, wherein the pixels each have a driving transistor, a switching transistor, and a capacitor, the driving transistor controlling a current value of the light emitting element, the switching transistor  
25 controlling input of a video signal into its pixel, and the capacitor holding the video signal.

17. A display device according to claim 4, wherein the pixels each have a driving transistor, a switching transistor, a capacitor, and an erasing transistor, the  
30 driving transistor controlling a current value of the light emitting element, the switching

transistor controlling input of a video signal into its pixel, the capacitor holding the video signal, and the erasing transistor discharging electric charges that are held in the capacitor.

5           18. A display device according to claim 5, wherein the pixels each have a driving transistor, a switching transistor, a capacitor, and an erasing transistor, the driving transistor controlling a current value of the light emitting element, the switching transistor controlling input of a video signal into its pixel, the capacitor holding the video signal, and the erasing transistor discharging electric charges that are held in the  
10 capacitor.

          19. A driving method of a display device that has a plurality of data lines in a column direction, a plurality of scanning lines in a row direction, and a plurality of pixels arranged into a matrix pattern, the pixels each having a light emitting element, x  
15 data lines ( $x$  is a natural number equal to or larger than 2) out of the plural data lines being placed in each column, and one scanning line out of the plural scanning lines being placed in each row,

          wherein one frame period has a plurality of sub-frame periods,

          wherein the plural sub-frame periods each have a writing period and a light  
20 emission period, or a writing period, a light emission period, and an erasure period, and

          wherein, in the writing period,  $y$  scanning drivers ( $y$  is a natural number equal to or larger than 1) select  $x$  scanning lines simultaneously whereas  $x$  data drivers simultaneously supply signals to  $x$  pixels selected out of the plural pixels through the  $x$  data lines placed in each column.

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          20. A driving method of a display device that has  $x$  data lines placed in each column, one scanning line placed in each column, and a plurality of pixels placed at points where the data lines and the scanning line intersect to form a matrix pattern, the pixels each having a light emitting element,

30           wherein one frame period has a plurality of sub-frame periods,

wherein the plural sub-frame periods each have a writing period and a light emission period, or a writing period, a light emission period, and an erasure period, and

wherein, in the writing period,  $y$  scanning drivers ( $y$  is a natural number equal to or larger than 1) select  $x$  scanning lines simultaneously whereas  $x$  data drivers  
5 simultaneously supply signals to  $x$  pixels selected out of the plural pixels through the  $x$  data lines placed in each column.

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